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Prostate Case # 1
Presentation of New Case

• Newly diagnosed prostate cancer patient

• Presentation at Cancer Conference for treatment recommendations and clinical staging
Prostate Case # 1

History

• 56 yr old white man asked PCP about prostate cancer screening with Prostate Specific Antigen (PSA) during his annual check-up

• After “shared decision” discussion between PCP and patient PSA test was ordered

• Family history negative; no prior prostate screening; mild lower urinary tract symptoms (nocturia X 1; slight decreased urinary stream)
Prostate Case # 1
Physical & Lab Results

• PSA level was 6.7 ng/dl

• PCP digital rectal examination documented no prostate nodules or induration and an estimated gland size of 30cc
Prostate Case # 1
Diagnostic Procedure

• Urologist digital rectal exam: 1 cm left mid gland firm nodule

• Procedure
  – Transrectal Ultrasound (TRUS)-guided core needle biopsy of prostate
  – Prostate volume: 33 cc

• Pathology prostate:
  – 6/12 needle cores positive
  – Gleason 4+3=7 (GG3) 1 core-left side- 40% of core
  – Gleason 3+4=7 (GG2) 3 cores-left & right- 15,25,70% of cores
  – Gleason 3+3=6 (GG1) 2 cores-right side- 30,45% of cores
Prostate Case # 1
Imaging Results

• Bone scan – negative for metastatic disease

• CT abd/pelvis – negative for metastatic disease
Prostate Case # 1
Gleason 4+3=7
Prostate Case # 1
Clinical Staging

• Clinical staging
  – Uses information from the physical exam, imaging, and diagnostic biopsy

• Purpose
  – Select appropriate treatment
  – Estimate prognosis
  – Provide risk grouping
Prostate Case # 1
Clinical Staging

• Synopsis: patient with 1 cm left mid gland firm nodule, Gleason 4+3=7 GG3, PSA 6.7, no nodes or mets on imaging

• What is the clinical stage?
  – T_______
  – N_______
  – M_______
  – PSA____
  – Gr Grp__
  – Stage Grp____
Prostate Case # 1
Clinical Staging

• Clinical Stage correct answer
  – cT2a
  – cN0
  – cM0
  – PSA <20
  – Grade Group 3
  – Stage Group IIC

• Based on stage, treatment is selected

• Review treatment guidelines for this stage
Prostate Case # 1
Clinical Staging

• Rationale for staging choices
  – cT2a for 1cm nodule on Lt side, ½ of one side or less
  – cN0 for no nodes on imaging
  – cM0 for bone scan and CT negative results, and because there were no symptoms or signs to suggest metastatic disease
  – PSA <20 as it was 6.7
  – Grade Group 3 for Gleason 4+3=7
  – Stage Group IIC
Prostate Case # 1

Treatment Options

• Review treatment guidelines for this stage

• Discuss appropriate treatment plans for this patient
Prostate Case # 1
Initial Treatment

• Presentation at Cancer Conference for initial treatment recommendations:
  – Patient chose radical prostatectomy with pelvic node dissection
Prostate Case # 1
Surgery & Findings

• Procedure
  – Small incision retropubic total prostatectomy with bilateral pelvic lymphadenectomy

• Operative findings
  – No gross evidence of extra-prostatic extension
  – No grossly enlarged pelvic lymph nodes
Prostate Case # 1
Pathology Results

• Prostate and Seminal Vesicles:
  – Tumor present on both sides
  – Gleason 4+4=8, 4+3=7, 3+4=7, 3+3=6 involving separate tumors
  – Tumor # 1 showing 5 mm left lateral positive margin with Gleason 4+3=7 at this margin
  – Two distinct areas of extraprostatic extension
  – Seminal vesicles were negative for malignancy

• R & L obturator nodes:
  – 8 nodes all negative
Prostate Case # 1
Gleason 4+4=8
Prostate Case # 1
Pathological Staging

• Pathological staging
  – Uses information from clinical staging, operative findings, and resected specimen pathology report

• Purpose
  – Additional precise data for estimating prognosis
  – Calculating end results (survival data)
Prostate Case # 1
Pathological Staging

• Synopsis: extraprostatic extension, Gleason 4+4=8 Grade Group 4, negative nodes, PSA <20

• What is the pathological stage?
  – T_____
  – N_____
  – M_____
  – PSA____
  – Grade Grp____
  – Stage Group____
• Pathological stage correct answer
  – pT3a
  – pN0
  – cM0
  – PSA <20
  – Grade Grp 4
  – Stage Group IIIB

• Based on pathological stage, there is more information to estimate prognosis and adjuvant treatment is discussed
Prostate Case #1
Pathological Staging

• Rationale for staging choices
  – pT3a for extraprostatic extension
  – pN0 for 8 negative nodes
  – cM0 – use clinical M with pathological staging unless there is microscopic confirmation of distant metastases
  – PSA <20 – pretreatment value was 6.7
  – Grade Grp 4 for Gleason 4+4=8
  – Stage Group IIIB
Prognostic Factors/Registry Data Collection

• Applicable for management of this case

  – Pretreatment serum PSA lab value: 6.7
  – Grade Group 4
  – Gleason pattern & score: 4+4 = 8
  – Number of cores examined: 12
  – Number of cores positive: 6
  – Needle core bx positive: both sides
Clinical and pathological T3a is defined as tumor with unilateral (left) or bilateral (right) extraprostatic extension.

Prostate Case #1
Recap of Staging

• Summary of correct answers
  – Clinical stage  cT2a cN0 cM0 PSA <20  Grade Group 3  Stage Group IIC
  – Pathological stage  pT3a pN0 PSA <20 Grade Group 4  Stage Group IIIB

• The staging classifications have a different purpose and therefore can be different. Do not change clinical staging based on pathological staging information.
Staging Moments Summary

• Review site-specific information & rules

• Clinical Staging
  – Based on information before treatment
  – Used to select treatment options

• Pathological Staging
  – Based on clinical data PLUS operative findings and resected specimen pathology report
  – Used to evaluate end-results (survival)